

What is claimed is:

1. A dynamic load sharing system using a virtual router comprising:

a plurality of equipment units each functioning as
5 a router which constitutes said virtual router having a single common address; and

an end system connected to a network through said virtual router,

wherein one of said equipment unit among a plurality
10 of equipment units functioning as a router constituting said virtual router is assigned as a master router, while each of the other equipment units functioning as a router is assigned as a backup router, and said assigned master router dynamically sets a packet condition for defining
15 the routing object to transmit to said backup router, so that routing processing between said network and said end system is performed by said plurality of equipment units each functioning as a router.

20 2. The dynamic load sharing system using the virtual router according to claim 1,

wherein when said backup router receives from said master router the information of packet condition for defining the routing object, said backup router transmits
25 a response message to said master router.

3. The dynamic load sharing system using the virtual router

according to claim 1,

whereinafter said master router notifies said backup
router of said packet condition for defining the routing
object, said master router removes said packet condition
5 being allocated to said backup router from the packet
condition for defining the routing object of said master
router itself.

4. The dynamic load sharing system using the virtual router
10 according to claim 2,

wherein after said backup router transmits said
response message to said master router, said backup router
is set to suspend routing processing for a predetermined
period.

15 5. The dynamic load sharing system using the virtual router
according to claim 2

wherein on reception of a response message packet
from said backup router, said master router removes the
20 allocated packet condition for defining the routing object,
and notifies said backup router of a sequence number of
the packet the routing processing for which is completed
by said master router.

25 6. The dynamic load sharing system using the virtual router
according to claim 5,

wherein said backup router discards a packet having

been routed by said master router from among buffered packets based on said sequence number information transmitted from master router, and performs routing processing from the succeeding packet to said discarded
5 packet.

7. The dynamic load sharing system using the virtual router according to claim 1,

wherein said backup router includes a monitor means
10 for monitoring flow rate information of the packets being routed by said backup router itself.

8. The dynamic load sharing system using the virtual router according to claim 7,

15 wherein when said packet flow rate monitored by said monitor means exceeds a predetermined value, said backup router requests said master router to review said packet condition for defining the routing object.

20 9. The dynamic load sharing system using the virtual router according to claim 7,

wherein said master router collects said flow rate information monitored by said monitor means in said backup router, to review packet condition for defining the routing
25 object when said packet flow rate exceeds a predetermined value.

10. The dynamic load sharing system using the virtual router according to claim 9,

wherein said flow rate information collection from said backup router being performed by said master router
5 is initiated by a request from said backup router.

11. The dynamic load sharing system using the virtual router according to claim 9,

wherein the reallocation of routers for routing
10 packets is initiated by said packet condition review.

12. The dynamic load sharing system using the virtual router according to claim 11,

wherein said review request from backup router is
15 inhibited for a predetermined period irrespective of said router reallocation for routing packets.

13. The dynamic load sharing system using the virtual router according to claim 11,

20 wherein said master router suspends said information collection for a predetermined period irrespective of said router reallocation for routing packets.

14. The dynamic load sharing system using the virtual router
25 according to either claim 1 to claim 13,

wherein said dynamic load sharing system further comprises a server performing the functions of modifying

packet information for routing and obtaining configuration information of said end systems.

15. The dynamic load sharing system using the virtual router
5 according to claim 1,

wherein said network includes a carrier network providing an IP virtual private network service (IP-VPN service) or an ISP (Internet service provider) network.

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